

# **EXHIBIT 21**

## Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Maria A. Pallante*

Register of Copyrights, United States of America

**Registration Number**  
**TX 7-933-364**

**Effective date of  
registration:**

November 14, 2014

## Title

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**Title of Work:** Cisco IOS XR version 4.3  
**Previous or Alternative Title:** Cisco IOS XR 4.3  
 Cisco IOS XR Release 4.3  
 Cisco IOS XR Software Release 4.3  
 Cisco IOS XR Software Version 4.3  
 Cisco Internetwork Operating System version XR version 4.3  
 Cisco Internetwork Operating System XR release 4.3

## Completion/Publication

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**Year of Completion:** 2012  
**Date of 1st Publication:** December 21, 2012      **Nation of 1st Publication:** United States

## Author

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■ **Author:** Cisco Systems, Inc.  
**Author Created:** text, computer program

**Work made for hire:** Yes

**Citizen of:** United States

**Domiciled in:** United States

■ **Author:** Bard na nGleann  
**Author Created:** text

**Work made for hire:** Yes

**Citizen of:** Ireland

**Domiciled in:** Ireland

■ **Author:** HCL Technologies Limited  
**Author Created:** text, computer program

**Work made for hire:** Yes

**Citizen of:** India

**Domiciled in:** India

■ **Author:** Nichepro Consulting Private Limited

**Author Created:** text

**Work made for hire:** Yes

**Citizen of:** India

**Domiciled in:** India

■ **Author:** Innovatia, Inc.

**Author Created:** text

**Work made for hire:** Yes

**Citizen of:** Canada

**Domiciled in:** Canada

■ **Author:** Abacus Business Solutions, Inc.

**Author Created:** computer program

**Work made for hire:** Yes

**Citizen of:** United States

**Domiciled in:** United States

■ **Author:** Aricent Technologies Mauritius Limited

**Author Created:** computer program

**Work made for hire:** Yes

**Citizen of:** Mauritius

**Domiciled in:** Mauritius

■ **Author:** Ensoft Limited

**Author Created:** computer program

**Work made for hire:** Yes

**Citizen of:** United Kingdom

**Domiciled in:** United Kingdom

■ **Author:** Infosys Technologies Ltd.

**Author Created:** computer program

**Work made for hire:** Yes

**Citizen of:** India

**Domiciled in:** India

■ **Author:** Wipro Limited

**Author Created:** computer program

**Work made for hire:** Yes

**Citizen of:** India

**Domiciled in:** India

■ **Author:** Tech Mahindra Limited

**Author Created:** computer program

**Work made for hire:** Yes

**Citizen of:** India

**Domiciled in:** India



■ **Author:** QNX Software Systems Co.

**Author Created:** computer program

**Work made for hire:** Yes

**Citizen of:** Canada

**Domiciled in:** Canada

## Copyright claimant

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**Copyright Claimant:** Cisco Technology, Inc.

170 W. Tasman Drive, San Jose, CA, 95134, United States

**Transfer Statement:** By written agreement

## Limitation of copyright claim

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**Material excluded from this claim:** Prior works by claimant and preexisting third party computer code

**Previous registration and year:** TXu1-592-305 2007

**New material included in claim:** New and revised computer code and accompanying documentation

## Certification

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**Name:** Joshua L. Simmons, Esq.

**Date:** November 12, 2014

**Applicant's Tracking Number:** 41593-0036

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**Registration #:** TX0007933364

**Service Request #:** 1-1879984622



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